The embodiments of the invention in which an exclusive property or privilege is claimed are defined as follows:

1. A method of employing a rotary machine to produce rotary power, comprising:

igniting intake products to generate an increased pressure caused by formation of combustive products;

directing the increased pressure into a rotatable expansion ring;

rotating the expansion ring a distance proportional to the increased pressure; and

exhausting the combustive products.

2. The method of Claim 1, wherein the intake products are introduced at or above ambient pressure.

3. The method of Claim 1, wherein a power stroke volume is greater than or equal to an intake chamber volume.

4. The method of Claim 3, wherein the power stroke volume is about 3 to 4 times greater than the intake chamber volume.

5. The method of Claim 1, wherein the exhaust stroke pressure is about ambient pressure or exceeds ambient pressure.

6. The method of Claim 1, wherein the thermal cycle is implemented by an internal combustion engine or an external combustion engine.

7. The method of Claim 1, wherein the rotary machine is implemented by a shaped charge or detonation cycle combustion engine.

8. A method of employing a thermal cycle in a rotary machine to produce rotary power, comprising:

introducing intake products into a space without compressing in an intake stroke;

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igniting the intake products to generate an increased pressure caused by formation of combustive products in a power stroke;

directing the increased pressure into a rotatable expansion ring;

rotating the expansion ring a distance proportional to the increased pressure; and

exhausting the combustive products in an exhaust stroke.

9. The method of Claim 8, wherein the intake products are introduced at about ambient pressure or exceeding ambient pressure.

10. The method of Claim 8, wherein the power stroke volume is about equal or greater than the intake stroke volume.

11. The method of Claim 9, wherein the power stroke volume is about 3 to 4 times greater than the intake chamber volume.

12. The method of Claim 8, wherein the thermal cycle is implemented by an internal combustion engine or an external combustion engine.

13. The method of Claim 8, wherein the rotary machine is implemented by a shaped charge or detonation cycle combustion engine.

14. A method of employing a thermal cycle in a rotary machine to produce rotary power, comprising:

introducing intake products into a space without compressing in an intake stroke;

igniting the intake products to generate an increased pressure caused by formation of combustive products in a power stroke;

directing the increased pressure into a rotatable expansion ring to cause movement of the expansion ring in proportion to the increased pressure;

rotating the expansion ring a distance proportional to the increased pressure; and

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exhausting the combustive products in an exhaust stroke.

15. The method of Claim 14, wherein the intake products are introduced at about ambient pressure or exceeding ambient pressure.

16. The method of Claim 14, wherein the power stroke volume is about equal or greater than the intake stroke volume.

17. The method of Claim 16, wherein the power stroke volume is about 3 to 4 times greater than the intake chamber volume.

18. The method of Claim 14, wherein the exhaust stroke pressure is about ambient pressure or exceeds ambient pressure.

19. The method of Claim 14, wherein the thermal cycle is implemented by an internal combustion engine or an external combustion engine.

20. The method of Claim 14, wherein the rotary machine is implemented by a shaped charge or detonation cycle combustion engine.

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